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EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874			WOLDEKIDAN, HIBRET ASNAKE	
BOSTON, MA	. 02205		ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

·		Application No.	Applicant(s)				
		10/789,537	NAKAMURA ET	NAKAMURA ET AL.			
Office Act	tion Summary	Examiner	Art Unit				
		Hibret A. Woldekidan	2613 ′				
The MAILING L Period for Reply	DATE of this communication app	ears on the cover sheet	with the correspondence a	ddress			
A SHORTENED STA WHICHEVER IS LON - Extensions of time may be a after SIX (6) MONTHS from - If NO period for reply is spee - Failure to reply within the se	TUTORY PERIOD FOR REPLY IGER, FROM THE MAILING DA available under the provisions of 37 CFR 1.13 the mailing date of this communication. Cified above, the maximum statutory period wet or extended period for reply will, by statute, ffice later than three months after the mailing ent. See 37 CFR 1.704(b).	ATE OF THIS COMMU  16(a). In no event, however, may  rill apply and will expire SIX (6) N  cause the application to become	NICATION.  y a reply be timely filed  NONTHS from the mailing date of this of aBANDONED (35 U.S.C. § 133).				
Status							
1) Responsive to	communication(s) filed on <u>26 Fe</u>	ebruary 2004	•				
2a) This action is F	,—						
•—	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
closed in accord	dance with the practice under E	x paπe Quayle, 1935 (	J.D. 11, 453 O.G. 213.				
Disposition of Claims		•	•				
4a) Of the above 5)	s/are rejected.	vn from consideration.					
Application Papers							
10)⊠ The drawing(s) Applicant may no Replacement dra	n is objected to by the Examine filed on <u>26 February 2004</u> is/are of request that any objection to the owing sheet(s) including the correct laration is objected to by the Ex	e: a) $\square$ accepted or b) [drawing(s) be held in abe ion is required if the draw	yance. See 37 CFR 1.85(a). ing(s) is objected to. See 37 C	FR 1.121(d).			
Priority under 35 U.S.C.	§ 119						
a) All b) Solution So	nt is made of a claim for foreign me * c) None of: copies of the priority documents copies of the priority documents of the certified copies of the priority from the International Bureau detailed Office action for a list	s have been received. s have been received in ity documents have be i (PCT Rule 17.2(a)).	n Application No en received in this Nationa	l Stage			
	Patent Drawing Review (PTO-948)	Paper I	w Summary (PTO-413) No(s)/Mail Date of Informal Patent Application				
3) N Information Disclosure Si Paper No(s)/Mail Date <u>02</u>	tatement(s) (PTO/SB/08) 2 <u>/26/04,02/07/07,12/19/07</u> .	6) Other:	of Informal Patent Application				

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## **DETELED ACTION**

## Information Disclosure Statement

1. The information disclosure statement filed 02/15/2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because complete references number for the US published patents have not been supplied. Therefore those references have not been considered and have been lined through on the respective 1449. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

For consideration of the crossed out references and new 1449 should be submitted with complete reference numbers.

## Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

<sup>(</sup>a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahirat et al. (6,879,783) in view of Watanabe et al. (US 2001/0036202).

Consider claim 1 Nakahira discloses a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a buffer that stores packets of input traffic (See Col. 5 lines 35-45 and 53-58 i.e. a buffer for storing packets); a packet transmission control section that fetches packets from the buffer (See Col. 9 lines 10-13 i.e. a node control section comprising a packet read to bring or transmit packet from the buffer), and, with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), distributes the packets to the initial path and to dynamically allocated additional paths (See Col. 13 lines 24-30 and 46-55, Col. 14 lines 7-27 i.e. node control section comprising a cut-through request packet processing part for distributing or transferring packets and optical path allocation request packet for allocating paths); a control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section(See Col. 14 lines 7-27 i.e. Optical path switching and router control part for controlling the

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allocation in the node control section); and a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths (See Col. 12 lines 6-20 i.e. optical cross connect section for switching optical paths).

Nakahira does not specifically disclose distributing the packets in a predetermined order of priorities.

Watanabe teaches distributing the packets in a predetermined order of priorities (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Nakahira, and distribute the packets in a predetermined order of priorities, as taught by Watanabe, thus allowing effectively synchronized data transmission system in a network, as discussed by Watanabe (Paragraph 6).

Consider claim 2 Nakahira discloses a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a monitoring section that monitors packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2 i.e. a node control section comprising a

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node determination part for monitoring or determining the input packet that are inputted from the router), with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path and to dynamically allocated additional paths(See Col. 13 lines 24-30 and 46-55, Col. 14 lines 7-27 i.e. node control section comprising a cut-through request packet processing part for distributing or transferring packets and optical path allocation request packet for allocating paths); a control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring(See Col. 14 lines 7-27 i.e. Optical path switching and router control part for controlling the allocation in the node control section); and a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths (See Col. 12 lines 6-20 i.e. optical cross connect section for switching optical paths based on the node control section).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 3 Nakahira discloses a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-

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62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a monitoring section that monitors packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2 i.e. a node control section comprising a node determination part for monitoring or determining the input packet that are inputted from the router), with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path and to dynamically allocated additional paths (See Col. 13 lines 24-30 and 46-55, Col. 14 lines 7-27 i.e. node control section comprising a cut-through request packet processing part for distributing or transferring packets and optical path allocation request packet for allocating paths); a first control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring(See Col. 14 lines 28-43 i.e. node control section comprising a router control part for controlling the allocation of the additional paths); a first wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths by the first control section(See Fig. 11 i.e. Col. 11 lines 63-67 and Col. 12 lines 1-5, Col. 14 lines 21-26, fig. 3,11 illustrates that a router or a first switching section for switching wavelengths in accordance to the router control part); a buffer that stores packets of the input traffic (See Col. 23 lines 49-57, Fig. 11, i.e. a buffer for storing the input packets or traffic); a packet transmission control section that fetches

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packets from the buffer (See Col. 23 lines 39-48, Fig. 11, i.e. a switch function part for guiding packet transmission from the buffer), and, with top priority given to the initial path(See Col. 24 lines 55-59 i.e. optical path where priority is given for packet transmission), distributes the packets to the initial path and to the additional paths (See Fig. 11 i.e. fig. 11 illustrates that a router for distributing packets to initial terminal, control function part, to the second switching device(OXC) via the buffer and switch function part); a second control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section(See Col. 14 lines 7-20, Fig. 2 i.e. path switching control part (2B4) for controlling the allocation of packets based on the allocation request packet); and a second wavelength path switching device that switches wavelength paths in accordance with the allocation control of the additional paths by the second control section (See Col. 14 lines 12-20, fig. 11 i.e. optical cross connect or a second wavelength path switching device for switching wavelengths based on the second controller or the optical path switching control part).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 4 Nakahira discloses the wavelength path switching node apparatus according to claim 1, wherein the packet transmission control section distributes packets to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths)

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Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 5 Nakahira discloses the wavelength path switching node apparatus according to claim 3, wherein the packet transmission control section distributes packets to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths)

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order)

Consider claim 6 Nakahira discloses the wavelength path switching node apparatus according to claim 1, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 7 Nakahira discloses the wavelength path switching node apparatus according to claim 2, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

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Consider claim 8 Nakahira discloses the wavelength path switching node apparatus according to claim 3, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 9 Nakahira discloses the wavelength path switching node apparatus according to claim 4, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 10 Nakahira discloses the wavelength path switching node apparatus according to claim 5, wherein the control section allocates at least one reserve additional path when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Considering Claim 11 Nakahira discloses a wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of

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traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a step in which packets of input traffic are stored in a buffer(See Col. 23 lines 49-57, Fig. 11, i.e. packets of input traffic stored in a buffer); a packet distributing step in which packets are fetched from the buffer (See Col. 23 lines 39-48, Fig. 11, i.e. a packet distributing or guiding step in which packets are transmit from the buffer using the switch function part), and, with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), the packets are distributed to the initial path and to dynamically allocated additional paths (See Fig. 11 i.e. fig. 11 illustrates that a router for distributing packets to initial terminal, control function part, to the second switching device(OXC) via the buffer and switch function part); and a step in which allocations of the additional paths are controlled based on distribution states of packet units in the packet distributing step(See Col. 14 lines 7-20, Fig. 2 i.e. a step for controlling the allocation of path switching based on the allocation request packet).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

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Consider claim 12 Nakahira discloses a wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme (See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a step in which packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2, 11 i.e. a step that packets inputted from the router distributed), with top priority given to a semifixed initial path (See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path (See Fig. 11 i.e. fig. 11 illustrates that packets distributed to different part of the device from the router) and to dynamically allocated additional paths are monitored (See Col. 12 lines 23-45, fig. 2 i.e. a node control section for monitoring or determining the allocated packets from the router); and a step in which allocations of the additional paths are controlled based on distribution states of packet units obtained by the monitoring (See Col. 14 lines 28-43, fig. 2 i.e. a step for controlling the allocation of the additional path based on the determination part or monitoring unit).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

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Consider claim 13 Nakahira discloses a wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme(See Col. 11 lines 55-62, abstract, fig. 2,3 i.e. a wavelength path allocation method for a node device comprising a wavelength division multiplexing used in optical communication network), comprising: a step in which packets of input traffic that are distributed (See Col. 12 lines 23-45, fig. 2, 11 i.e. a step that packets inputted from the router distributed), with top priority given to a semifixed initial path(See Col. 24 lines 55-59, Col. 23 lines 39-48, Fig. 3,11 i.e. optical path where priority is given for packet transmission and packets transmitted to the first OXC or the semifixed initial path), to the initial path (See Fig. 11 i.e. fig. 11 illustrates that packets distributed to different part of the device from the router) and to dynamically allocated additional paths are monitored (See Col. 12 lines 23-45, fig. 2 i.e. a node control section for monitoring or determining the allocated packets from the router); a first control step in which allocations of the additional paths in a first wavelength path switching section are controlled based on distribution states of packet units obtained by the monitoring; a step in which packets of input traffic are stored in a buffer(See Fig. 11 i.e. Col. 11 lines 63-67 and Col. 12 lines 1-5, Col. 14 lines 21-26, fig. 3,11 illustrates that a router or a first switching section for switching wavelengths in accordance to the router control part); a packet distributing step in which packets are fetched from the buffer(See Col. 23 lines 39-48, Fig. 11, i.e. a

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packet distribution step using a switch function part for guiding packet transmission from the buffer), and, with top priority given to the initial path(See Col. 24 lines 55-59 i.e. optical path where priority is given for packet transmission, the packets are distributed to the initial path and to the additional paths (See Fig. 11 i.e. fig. 11 illustrates that a router for distributing packets to initial terminal, control function part, to the second switching device(OXC) via the buffer and switch function part); and a second control step in which allocations of the additional paths in a second wavelength path switching section are controlled based on distribution states of packet units in the packet distributing step(See Col. 14 lines 7-20, Fig. 2 i.e. path switching control part (2B4) or a second control step for controlling the allocation of packets based on the allocation request packet).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 14 Nakahira discloses the wavelength path allocation method according to claim 11, wherein, in the packet distributing step, the packets are distributed to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

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Consider claim 15 Nakahira discloses the wavelength path allocation method according to claim 13, wherein, in the packet distributing step, the packets are distributed to the additional paths (See abstract, Col. 5 lines 15-20, Fig. 11 i.e. fig. 11 a router for distributing packets to different paths).

Watanabe further teaches distributing the packets in a predetermined order of priorities for the reasons discussed in claim 1 (See Watanabe abstract, Col. 5 lines 5-10 i.e. distributing or transmitting packets in a prioritized order).

Consider claim 16 Nakahira discloses the wavelength path allocation method according to claim 11, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 17 Nakahira discloses the wavelength path allocation method according to claim 12, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 18 Nakahira discloses the wavelength path allocation method according to claim 13, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines

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46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 19 Nakahira discloses the wavelength path allocation method according to claim 14, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

Consider claim 20 Nakahira discloses the wavelength path allocation method according to claim 15, wherein, in the control step, at least one reserve additional path is allocated when packets are being distributed (See Col. 2 lines 30-44, Col. 13 lines 46-65, Col. 23 lines 43-61 i.e. the node device comprising optical path allocation process request packet part for allocating paths and a switching function for distributing reserved or stored packets).

## Conclusions

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hibret A. Woldekidan whose telephone number is 27054145. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 5712723078. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. A. W./ Examiner, Art Unit 2613

> KENNETH VANDERPUYE SUPERVISORY PATENT EXAMINER